ATOMIC ENERGY CENTRAL SCHOOL – 1 Anushaktinagar, Mumbai – 400 094

Chapter 8 DECIMALS

Subject: Mathematics Module 3

ADDITION OF DECIMALS

Addition of decimals is like addition of whole numbers. For addition of decimal numbers we place the decimals one blow the other such that the decimal points are in a vertical line. The digits are in their proper place-

Ones below ones

Tenths below tenths

Hundredths below hundredths

and so on....

Then we add them like whole numbers and place the decimal point in the sum vertically blow the other decimal points.

Eg. 1) Find the sum:

(a)
$$0.29 + 0.36$$

(b)
$$0.7 + 0.08$$

(c)
$$1.54 + 1.80$$

(d)
$$2.66 + 1.85$$

Answer (a) 0.29 + 0.36

Ones	Tenths	Hundredths	
0	2	9	
+ 0	3	6	
0	6	5	

Thus, 0.29 + 0.36 = 0.65

Answer (b) 0.29 + 0.36

Ones	Tenths	Hundredths
0	7	
+0	0	8
0	7	8

Thus, 0.07 + 0.08 = 0.78

Answer (c) 1.54 + 1.80

Ones	Tenths	Hundredths	
1	5	4	
+ 1	8	0	
3	3	4	

Thus, 1.54 + 1.80 = 3.34

Answer (d) 2.66 + 1.85

Ones	Tenths Hundredth	
2	6	6
+ 1	8	5
4	5	1

Thus, 2.66 + 1.85 = 4.51

- **Eg: 2**) Nutan bought 3m 20m cloth for her shirt and 2 m 5 cm for her skirt. Find the total cloth bought by her.
- Answer 2) Cloth for shirt = 3 m 20 cm = 3.20 mCloth for skirt = 2 m 5 cm = 2.05 m

Total cloth bought by Nutan = 5.25 m

So, the total cloth by Nutan = 5.25 km

- **Eg.3**) Suman travels 10 km 388m by bus, 6 km 8 m by taxi and 750 m by foot to reach her school. Find the distance she has to travel to reach her school.
- **Answer 3**) Distance travelled by bus = 10 km 388 m = 10.388 kmDistance travelled by taxi = 6 km 8 m = 6.008 km

Distance travelled by foot = 750 m = + 0.750 km

Total distance travelled by Suman = 17.146 km

So, total distance travelled by Suman to reach school = 17.146 km.

Eg. 4) Neeta went to market and bought a book for Rs 125.75and a toy for Rs 55.50. How much money did she spend in all?

Answer: Cost of book = Rs 125.75

 $Cost of toy = + \underbrace{Rs \quad 55.50}$

Total money spent = $\frac{\text{Rs } 181.25}{\text{Rs } 181.25}$

Neeta spent Rs 181.25 in all.

Eg. 5) Find the sum.

a) 0.007 + 8.5 + 30.08

b) 280.69 + 25.2 + 38

c) 15.55 + 7.005 + 2.9

d) 28.058 + 0.33 + 0.007

Answer:

30.587	284.89	<u>25.455</u>	28.395
+ 30.080	+ 38.00	+2.900	+0.007
+ 8.500	+ 25.20	+7.005	+0.330
a) 0.007	b) 280.69	c) 15.550	d) 28.058

ASSIGNMENT: Complete Exercise 8.5 of mathematics textbook

SUBTRACTION OF DECIMALS

In subtraction of decimals also, we arrange thee two decimal numbers one below the other such that their decimal points are in a vertical line. The subtraction of decimals can be done by subtracting hundredths from hundredths, tenths from tenths, ones from ones and so on. If the given decimals are unlike decimals, then first change them to like decimals.

Eg. 6) Subtract:

- (a) 1.85 from 5.46 (b) 5.25 from 8.28
- (c) 10.95 from 28.29 (d) 72.25 from 500.68
- (e) 27.8 from 45.03 (f) 53.05 from 128.4

Answer a) 1.85 from 5.46

Ones	Tenths Hundredths		
5	4	6	
- 1	8	5	
3	6	1	

Thus, 5.46 - 1.85 = 3.61

Answer b) 5.25 from 8.28

Ones	Tenths	Hundredths
8	2	8
- 5	2	5
3	0	3

Thus, 8.28 - 5.28 = 3.03

Answer c) 10.95 from 28.29

Tens	Ones	Tenths	Hundredths
2	8	2	9
- 1	0	9	5
1	7	3	4

Thus, 28.29 - 10.95 = 17.34

Answer d) 72.25 from 500.68

Hundreds	Tens	Ones	Tenths	Hundredths
5	0	0	6	8
-	7	2	2	5
4	2	8	4	3

Thus, 500.68 - 92.25 = 428.43

- e) 27.8 from 45.03
 - 45.03
 - 27.80
 - <u>17.23</u>

- (f) 53.05 from 128.4
 - 128.40
 - <u>-53.05</u>
 - 75.35

Eg. 6) Find the value of

- a) 21.05 15.27
- b) 18.5 6.79
- c) 91.001 72.9

- d) 108.032 86.8
- e) 9.756- 6.28
- **Answer a**) 21.05
 - <u>15.27</u>
 - 5.78

- b) 18.50
 - 6.79
 - 11.71

- c) 91.001
 - <u>72.900</u>
 - 18.101
- e) 9.756
- 6.280
- 3.476

- d) 108.032
 - 86.800
 - 21.232

- PROBLEM SUMS
- Eg. 7) Sameer drove 89.050 km on Sunday and 73.9 km on Monday. How

many more kilometres did he drive on Sunday?

Answer: Distance covered on Sunday = 89.050 km

Distance covered on Monday = -73.900 km

More distance covered on Sunday = <u>15.150 km</u>

Sameer covered 15.15km more on Sunday.

Eg. 8) Gopi bought a pen for Rs 27.50. He gave Rs 100 to the shopkeeper.

How much money will Gopi get back from the shop keeper?

Answer: Money given to shopkeeper = Rs. 100.00

Cost of pen = - Rs 27.50

Money received from shopkeeper = Rs 72.50

Gopi got Rs 72.50 back from the shopkeeper.

Eg. 9) Rimi bought mangoes weighing 10 kg 850 g. Sh gave 3 kg 200 g to her

sister. Find the weight of mangoes left with her.

Answer: Weight of mangoes bought = 10.850 kg

Weight of mangoes given = $\frac{-3.200 \text{ kg}}{}$

Weight of mangoes left = 7.650 kg

Rimi had 7.650 kg of mangoes left with her.

Eg. 10) Tarun walked 8.62 km on Monday, 7.05 km on Tuesday and some

distance on Wednesday. If he walked 21.01 km in three days, how much

distance did he walk on Wednesday?

Answer: Distance walked on Monday = 8.62 km

Distance walked on Tuesday = $\pm 7.05 \text{ km}$

Total distance walked in two days = 15.67 km

Total distance walked in three days = 21.01 km.

Total distance walked in two days = $\frac{15.67 \text{ km}}{1}$

∴ Distance walked on Wednesday = 5.34 km

Tarun walked 5.34 km on Wednesday.

ASSIGNMENT: Complete Exercise 8.6 of mathematics textbook.